Vegavis

Vegavis is a genus of extinct bird that lived during the Late Cretaceous (Maastrichtian stage) of Antarctica, some 68 to 66 mya. Among modern birds, most studies show that *Vegavis* is most closely related to ducks and geese (Anatidae), but it is not considered to be a direct ancestor of them.[2] Although other studies question these results.[3]

Vegavis was a bird with high metabolism, which allowed it to live at high latitudes in Antarctica. It also shows a degree of osteosclerosis, a condition shared with *Polarornis*. This different degrees of osteosclerosis could be related to variations in diving behaviour.[4]

Vegavis

Temporal range: Maastrichtian

~68–66 Ma

Pre€ € O S D C P T J K PgN

Life restoration based on the 2017 study by Angolín *et al*.[1]

Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	†Vegaviiformes
Family:	†Vegaviidae
Genus:	†*Vegavis* Clarke *et al.* 2005
Species:	†***V. iaai***
Binomial name	
†***Vegavis iaai*** Clarke *et al.* 2005	

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Etymology

The genus name, *Vegavis*, is a combination of the name of Vega Island and "avis", the Latin word for bird. The species name, "iaai", is after the acronym for Instituto Antartico Argentino (IAA), the Argentine scientific expedition to Antarctica.

Description

The discovery of the type species, ***Vegavis iaai***, demonstrates that the major groups of bird alive today had already diversified in the Cretaceous. This supports the longstanding phylogenetic inferences of paleornithologists. It has been hailed as the first definitive physical proof that representatives of some of the groups of modern birds lived in the Mesozoic.[2]

The holotype specimen of *Vegavis* is held by the Museo de La Plata, Argentina. The specimen, cataloged as MLP 93-I-3-1, was found in the López de Bertodano Formation at Cape Lamb on Vega Island, Antarctica, in 1993, but was only described as a new species in 2005 because it consists of the very delicate remains of one bird embedded in a concretion, which had to be meticulously prepared for study. CT scans were utilized to gain a clearer picture of the bone structure without running danger of damaging or destroying the fossil.[2]

A second specimen, MACN-PV 19.748, was found beside the holotype specimen. It was preserved in three dimensions; CT scans were again utilized to visualize the intact syrinx of this specimen. The syrinx has an asymmetrical third segment, suggesting that *Vegavis* had two sources of sound in the neck and along with large soft-tissue resonating structures. This indicates that it was likely capable of honks as in ducks, geese, and other basal neognaths.[5] In 2017 a phylogenetic study Agnolín and colleagues have found *Vegavis* to be stem-anseriforms along with *Polarornis*, *Neogaeornis* and *Australornis* in the family Vegaviidae.[1]

See also

- Asteriornis

References

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2. Clarke, J.A.; Tambussi, C.P.; Noriega, J.I.; Erickson, G.M.; Ketcham, R.A. (2005). "Definitive fossil evidence for the extant avian radiation in the Cretaceous" (http://www.digimorph.org/specimens/Vegavis_iaai/nature03150.pdf) (PDF). *Nature*. **433** (7023): 305–308. doi:10.1038/nature03150 (https://doi.org/10.1038%2Fnature03150). PMID 15662422 (https://pubmed.ncbi.nlm.nih.gov/15662422). Supporting information (http://www.nature.com/nature/journal/v433/n7023/suppinfo/nature03150.html)
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4. Marsà, Jordi Alexis Garcia; Agnolín, Federico L.; Novas, Fernando (2019). "Bone microstructure of Vegavis IAAI (Aves, Anseriformes) from the Upper Cretaceous of Vega Island, Antarctic Peninsula". *Historical Biology*. **31** (2): 163–167. doi:10.1080/08912963.2017.1348503 (https://doi.org/10.1080%2F08912963.2017.1348503).
5. Clarke, J.A.; Chatterjee, S.; Li, Z.; Riede, T.; Agnolin, F.; Goller, F.; Isasi, M.P.; Martinioni, D.R.; Mussel, F.J.; Novas, F.E. (2016). "Fossil evidence of the avian vocal organ from the Mesozoic". *Nature*. **538** (7626): 502–505. doi:10.1038/nature19852 (https://doi.org/10.1038%2Fnature19852). PMID 27732575 (https://pubmed.ncbi.nlm.nih.gov/27732575).

External links

- 'Dinosaurs Mingled with Cousins of Ducks and Chickens', from Live Science (http://www.livescience.com/animalworld/050125_dino_chickens.html)
- ‘These Are the Dinosaurs That Didn't Die’, from National Geographic (https://www.nationalgeographic.com/magazine/2018/05/dinosaurs-survivors-birds-fossils/)